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OFFICIAL PROCEEDINGS

Meeting of October, 1920

Volume XIX.
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CORPORATED OCTOBER 1913

Canadian Railway Club

MONTREAL

CONTENTS

REPORT OF OCTOBER MEETING
and
PAPER AND DISCUSSION
on
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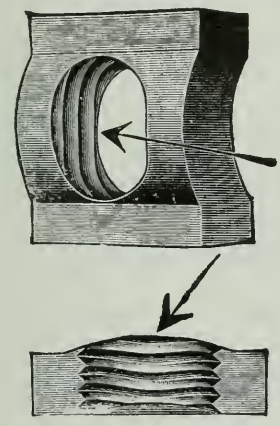

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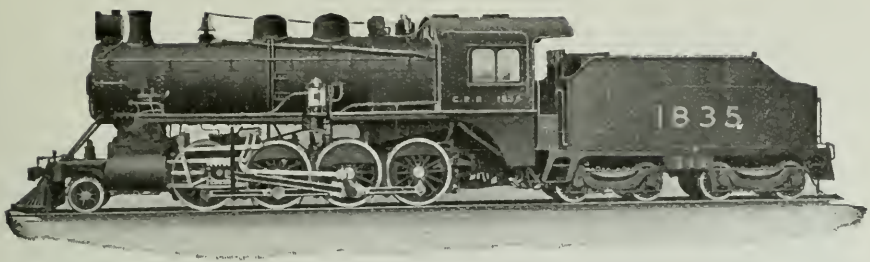

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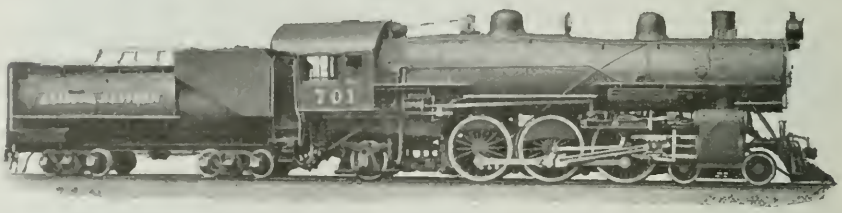

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PROCEEDINGS OF THE CANADIAN RAILWAY CLUB.

Windsor Hotel, Montreal,
October 12th, 1920.

Chairman (Mr. W. H. Winterrowd):

Gentlemen, may I call your attention to the cards which have been placed on the chairs- Will you be good enough to fill them out.? At the last meeting we had an excellent attendance, but the cards were not filled out, with the result that the Secretary was unable to show in the proceedings the really good attendance we actually had.

There has been a little delay, which was unavoidable, in printing the minutes of the last meeting, but the Secretary informs me that they will be mailed to you in a day or two, and they should therefore reach you shortly.

Next is the announcement by the Secretary of the applicants for membership. From the number on the table it would seem that there is quite a list.

Secretary:

Mr. President and gentlemen, the list of applicants for membership follows:

New Members.

Beattie, W. G., Clerk, Purchasing Dept., Canadian Pacific Railway, Montreal.

Becker, A. F., Representative, Paxton Mitchell, Ltd., 421 St. James Street, Montreal.

Bingham, H. E., Contract Foreman, Canadian Pacific Railway, 616 Moreau St., Montreal.

Burston, A., Clerk, Purchasing Dept., Canadian Pacific Railway, 1519 Hutchison St., Montreal.

Dawson, A., Draughtsman, Chief Mech. Engr's. Office, C. P. R., Windsor St. Station, Montreal.

Doherty, A., Draughtsman, Canadian Pacific Railway, Loco. Drawing Office, Angus Shops, Montreal.

Fesmer, E., Clerk, Purchasing Dept., Canadian Pacific Railway, 1318 Messier St., Mount Royal Ave., Montreal.

Finney, M., Clerk, Purchasing Dept., Canadian Pacific Railway, Montreal.
Flick, H. R., Mechanical Engineer, A. E. Robinson Co., 228 Craig St. W., Montreal.
Garfinkle, P., Traffic Manager, Crane Company, Ltd., 1280 St. Patrick St., Montreal.
Golden, E. E., Plumbing Manager, Crane Company, Ltd., 1280 St. Patrick St., Montreal.
Holland, F. E., Mgr. Rly Sales Dept., Sherwin-Williams Co., Ltd., Centre St., Montreal.
Hughes, J. W., Electrical Engineer, Canadian Pacific Railway, Room 903, Windsor St. Station, Montreal.
Ivory, W., Contract Foreman, Angus Shops, C. P. R., 383b 9th Ave., Rosemount.
Luscombe, H., Asst. Div. Engineer, Grand Trunk Rly., McGill, St., Montreal.
Manson, L. W., Clerk, Purchasing Dept., C. P. R., Room 25, Windsor Station, Montreal.
Monks, T. H., Contract Foreman, Canadian Pacific Rly., Montreal.
Murray, F. T., Contract Foreman, C. P. R., Angus Shops, Montreal.
Murphy, F. H., Canadian Pacific Railway, 282 Hampton Ave., Notre Dame de Grace.
McCallum, W. A., Vice-President, Joliette Castings & Forgings, Ltd., 326 Transportation Building, Montreal.
McElroy, J., Clerk, Purchasing Dept., Canadian Pacific Rly., Windsor Station, Montreal.
McFeat, W. R., Patent Attorney, City of Montreal, P. O. Box 2005, Montreal.
McGuire, F. E. J., Purchasing Dept., Canadian Pacific Rly., Montreal.
McLachlan, J., Loco. Draughtsman, C. P. R., Room 1100, Windsor Station, Montreal.
Palmer, L., Special Repr., Canadian Foamite Firefoam Co., 604 Southam Bldg., Montreal.
Robinson, J. I., Mgr. of Sales, Crane Co., Ltd., 1280 St. Patrick St., Montreal.
Robertson, I., Contract Foreman, C. P. R., Angus Shops, Montreal.
Rogers, W., Contract Foreman, Canadian Pacific Railway, Angus Shops, Montreal.
Sampson, R., Store-order Foreman, C. P. R., Angus Shops, Montreal.
Tellier, F. J., Final Inspr., Canada Steel Co., Montreal.

Webb, W. C. H., Contract Foreman, Car Dept., Canadian Pacific Rly., Angus Shops, Montreal.

Chairman:

You have heard the list of applicants, gentlemen—a motion is in order for the acceptance of these applications.

Mr. E. A. Cunningham:

If passed on by the Executive Committee, I move they be accepted.

Mr. W. H. Sample:

Seconded.

Chairman:

It has been duly moved and seconded that these applications be accepted. Will everyone please signify in the usual way?

Carried.

MEMBERS PRESENT.

Winterrowd, W. H	Dyke, H. J.	McAlpine, J. H.
Allen, C. D.	Evans, W. E.	McDonald, A.
Atter, Jos.	Fairchild, C. R.	McFeat, W. P.
Battley, E. R.	Flick, H. R.	McHattie, T.
Beahan, P.	Gray, W. L.	McLachlan, J.
Bentley, Geo.	Graves, W. M.	McVey, W. P.
Black, R. H.	Howes, W. T.	McVicar, R.
Boughton, L.	Hendry, J.	Naylor, H. R.
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Brown, L.	Holland, R. F.	Ogden, J.
Buckland, J. W.	Hudson, T. C.	Parsley, W. H.
Buckle, W. E.	Kendall, A. H.	Payne, H.
Burns, John	Kendall, Geo.	Pepler, H. A.
Butler, A.	Kinnear, D.	Pope, A.
Cameron, H. D.	Kinnear, D. M.	Prouse, Wm.
Carter, J. W.	Larkin, Leo.	Riddington, A.
Clarke, J. E.	Lloyd, E. E.	Rodgers, J. H.
Cliford, Thos.	Miller, W.	Rodgers, W. B.
Conway, A. C.	Mimms, A. E.	Sample, W.H.
Crutchlow, G.	Miner, J. D.	Scott, W. L.
Cunningham, E. A.	Mynard, T.	Shenton, G.
Delaney, O. J.	Macken, J. R.	Sleigh, T.
Desparois, J. D.	Mackie, R. L. D.	Spidy, E. T.
Dohm, J. T.	Macnab, E. S. M.	Stewart, W. H.

Symmes, H. H.	Walker, C. E.	Weston, H.
Thorburn, C. D.	Webb, W. C. H.	Weston, M.
Thorp, H. W.	Wheeler, H. C.	Booth, W. A.
Van Dewall, L. J.	Wells, C. W.	and others

Chairman:

The paper of the evening is entitled "Patents of Invention." It has been prepared by Mr. William P. McFeat, Patent Attorney of Montreal. I think I can safely make the statement in connection with this paper that I made in speaking of the paper given at our last meeting, and that is that while there may be some here who are not in a position to technically discuss the paper, no doubt there are many of us who can ask questions; therefore, during the reading of the paper, or afterwards, if there are any questions you wish to ask do not hesitate to do so, as I am sure Mr. McFeat will be only too glad to answer them. I take great pleasure in introducing Mr. McFeat to you.

Mr. W. P. McFeat:

Mr. Chairman and members of the Canadian Railway Club. I consider an honor has been conferred upon me in the opportunity afforded to address this club. The title of this paper is "Patents of Invention." I might say, however, that a patent of invention is not the only way that business can be developed and protected in this country,—or in any other country, for that matter. Protection may also be obtained from trade marks, design-patents and copyrights—but these I will not touch upon as I believe the time will be pretty well filled up with the subject in hand.

"PATENTS OF INVENTION."

In my effort to convey to this Club some information of patents of invention I will first try to tell whence come our laws by virtue of which these patents are granted. I will also try to give my idea of what an important thing for the community invention is. And I will tell upon what conditions Canadian patents of invention may be obtained and maintained. Also how to realize on an invention.

As early as Edward III. in the year 1477, special acts were passed giving relief against monopolies in the form of Letters Patent, under which great restraint of trade was practised for the benefit of the patentee and the Crown. Our old friend, Sir William Blackstone, in his commentaries, first made in a

course of lectures at Oxford in 1753, states briefly the condition of affairs before the reign of King James the First of England (1603), Blackstone informs us that during these early years monopolies were granted by the king for the sole buying and selling, making, working or using, of all things whatsoever, and by these Letters Patent manufacturers were restrained from doing that which they had done before. These monopolies had been increased enormously during the reign of Queen Elizabeth. The penalties provided in these early days consisted of heavy fines, with or without the pillory, and for repeating the offense the loss of one ear. We can imagine some of these early infringers sitting in the stocks for days with their ankles locked in the boards and their hands tied behind their backs, where they were made to suffer all manner of indignities by the loafers in the neighborhood. The practice was at the time to raise large sums of money for the use of the Crown and the Government by means of these patents without the slightest advantage to the general public. Amongst the monopolies granted by Letters Patent was the patent granted to the cloth makers of Ipswich, and the patent for playing cards. In neither of which cases was there any pretence of invention. In this case if the queen had a friend that she wished to particularly favor she would grant him a franchise for the manufacture of a certain article, such as car wheels, for instance. That "friend" would then shut up all the car wheel shops in the country and the car wheel manufacturers would have to get the "friend's" permission before they could open up again. Naturally this "friend" would want something for himself, and he would have to divide it with the Crown.

Up to this time patents had been granted for inventions, besides many more granted, as I have said, for carrying on certain trades or producing various articles or, in fact, importing them from other countries. The monopolies granted under the Tudor Sovereigns became so monstrously oppressive that the Parliament of England prevailed upon James the First in 1621 to consent to a bill which is the celebrated Statute of Monopolies. This Statute of Monopolies of England is the foundation of all modern patent laws. This original law provides for the grant of a monopoly as a reward, not only for the benefit that the invention confers upon the public but also for the ingenuity of the first inventor. Consequently if he who first obtained the patent was not the man whose ingenuity first discovered the invention and if proof existed that it could have been taken from a book or other publication,

then, although he may have been the first to bring it to the attention of the public and thereby benefit the public by it, he would not be entitled to a monopoly because he was not the first and consequently should not have reward for ingenuity. This was the belief of the progressive branch of the manufacturers of the early part of the seventeenth century as laid down by this initial patent law, and as I have just said, it has formed the basis of all modern patent laws.

In order to obtain the monopoly granted by Letters Patent of invention it is necessary for a man to rise above the commonplace in whatever art he may be engaged, whether the building of cars, the construction and laying down of track work, the erection of bridges or the manufacture of steel and other metal parts and textile and wooden things, each contributing to the railway and its operation. He must perceive the obstacles to increased or improved production, or greater comfort for the public or the worker, propound the problem the obstacle offers and conceive a remedy. That is really what an invention is: to see the obstacle; then since having seen the obstacle, propound the problem and finally solve the problem and overcome the obstacle. In this way he rises above the commonplace and by seeking a monopoly in the form of a patent upon the device or process conceived, he brings himself in a measure before the public and if he is diligent in promoting the result of his ingenuity he will attract the notice of others working in the same art or those who are financially behind this work. From my years of activity in connection with patents of invention I have come to look upon invention as the dramatic, as compared to the commonplace in the development of the arts. It is this which to my mind directs that attention to the fortunate one to-day whose activity makes the first step forward in any art, which brings to him the reward intended by that old law defined in the Statute of Monopolies back in the early part of the seventeenth century. The dramatic is present in almost all cases where attention is attracted. Take for instance the destruction of lives and buildings in the recent explosion in New York. Our attention was directed to the death of these men and women and the destruction of parts of the buildings, and we all think and talk about it; while just as many lives, just as valuable, and just as much damage to property takes place each week in the ordinary course of events by street accidents and fires in New York, but they are the commonplace; whereas the explosion was the dramatic. It was the same in the bombing of the City of London by German flying machines when

lives were destroyed but not in any greater number than are destroyed in almost an equally short time by street accidents. I wish to impress upon you who are engaged in production that by making a first step forward you are entitled to the notice of those upon whom you depend for advances and this because of the dramatic nature of the development as compared with the commonplace work.

I have endeavored to bring to you an appreciation of the field that is open to all producers and, I may say, is open particularly to those whose work is the production of that which is necessary to maintain and develop the means of rapid transit.

The modern patent laws of different countries differ very considerably in their application of the broad principles I have stated. Each country makes its laws with regard to patents of invention, to obtain the best results for the community. In some countries limited publication of the invention there or in fact anywhere in the world makes the invention public property if this publication has not been preceded by the application of a patent. Take, for instance, an invention made in Canada which had been published before application was made for a patent. It would automatically become public property in France and you could never take out a patent on it in France. Other countries require that the invention be manufactured to a reasonable extent in that country in proportion to its manufacture abroad. That is the case in England. They do not care what you do elsewhere but when you come to publish the invention in England you forfeit your right to a patent there unless you have previously filed an application for a patent. But they will allow the patentee, after he has obtained his patent, to manufacture abroad; then when he develops it abroad he must develop it in England, and if he does not do this to the same extent, proportionately speaking, as he has manufactured abroad (here or in the United States) his patent may be forfeited. Other countries ignore these requirements and as in the case of the United States, for instance, permit manufacture and sale of the invention in that country for two years before the patent is applied for. In some countries importation of the patented invention is allowed and the patentee may stop all others from importing while he, under his monopoly, may import and thus supply the demand of those countries. Take India, for instance, that enormous country, with its three millions of people. A manufacturer in Montreal may obtain a patent in India and block anybody else from importing into India. The

same applies in Australia, and in practically all the South American Republics as well as Mexico. A great many take advantage of these laws. These foreign laws, or the majority of them, had been in existence for many years before the present Canadian patent law came into existence and apparently our law makers adopted in a single law what appeared to be the features of these other laws which are good for Canada. Being Canadian producers we are, of course, interested principally in the Canadian law. From my point of view has been necessary to emphasize the importance of looking for and overcoming the obstacles to progress in the arts in order that you may appreciate what a patent of invention is; and what I have said regarding the stepping forward in the art is universal and consequently is essential to the application for letters patent of invention of Canada.

Assuming that a worker in one of the arts has perceived his obstacle and conceived his means for overcoming it and making his forward step, and wishes to obtain the reward to which he is entitled, he is, according to Canadian patent law, permitted to manufacture and sell the invention for one year, wherever he may be, even in the Fiji Islands. If he makes his application for a patent in Canada within that year and is the first to have the ingenuity to make the forward step he is entitled to his patent, provided he can truthfully make oath that his invention has not been in public use or on sale with his consent or allowance for more than one year. He must make this oath in his application. An examination is made in the Patent Office at Ottawa in order to ascertain, if possible, whether he is the first to make the invention and if nothing to the contrary is found the patent is granted. During the time between the filing of the application and the grant of the patent and during the year before the application is filed the inventor may have the invention manufactured wherever he pleases and may import it into Canada without jeopardizing his rights; and he may also continue to import the invention for one year after the patent has been granted. There is provision in the Canadian Act for an extension of this year but the Commissioner of Patents must be satisfied that the further importation after the first year will be for the benefit of the community and that it will lead to manufacture in Canada, otherwise he will not grant any extension. With regard to the manufacture of the invention in Canada—as the patent issues it is subject to a provision of the Patent Act which requires that, manufacturers of the invention be commenced in Canada within two years after the date of grant of the

patent and after such commencement the manufacture must be continuously carried on, even if it has been commenced before the application is filed. Failing commencement to manufacture, and continuously manufacture, the patent is forfeited and all rights and privileges thereby granted cease. That is where a man begins manufacturing and takes advantage of the year that is allowed in this country, and after the patentee gets it on the market he endeavors to find out if there is any money in it. He must continuously carry on manufacture from the time he commences, and this particular section of the act to which I refer applies to such cases as, for instance, where a man patents a bridge. He will have to commence manufacturing within this limit of time, and continuously carry on the manufacture. The law is very strict in this regard and the Privy Council has stated that there is no room for interpretation, its reading being perfectly clear. There is no doubt about this as the section of the law covering manufacture reads thus:

> "Such patent and all the rights and privileges thereby granted shall cease and determine and the patent shall be null and void at the end of two years from the date thereof unless the patentee or his legal representative within that period or an authorized extension thereof commence and after such commencement continuously carry on in Canada the construction or manufacture of the invention patented, in such a manner that any person desiring to use it may obtain it or cause it to be made for him at a reasonable price, at some manufactory or establishment for making or constructing it in Canada."

Before 1903 it was the common belief amongst manufacturers who took advantage of patents of invention to improve their business, that this law could be interpreted to mean that manufacture need not be carried on unless there was a *bona fide* demand; but in 1903 this section of the law was tried out and our Supreme Court decided that the law was clear and that there was no room for interpretation, this decision being upheld by the Privy Council. The result of this decision was that the owners of a large majority of Canadian patents found that their monopolies had been forfeited, and they got after our law makers and made them pass what is known as the Remedial Act, which revived all the patents forfeited, upon the condition that manufacture should forthwith be commenced. But a difficulty presented itself. How could the inventor of a grain elevator or a railway bridge or a round

house commence to manufacture his invention and continuously carry on the manufacture or erection if the Government or the railways could not be made to see sufficient advantage to give an order? This was taken care of in the Remedial Act by providing for relief from the restrictions of the law regarding manufacture, and provision was made for an order to be granted by the Commission relieving such patent from the restrictions of the law and making the owner responsible for the manufacture of the invention in Canada so that the reasonable requirements of the public in reference to the invention would be satisfied. This may be done by granting a license, and any one interested in the art to which the invention appertains may go before the Commissioner, and upon proving to him that the owner of the patent either by neglect or wilfully monopolizing the invention has prevented him from obtaining it, may obtain an order from the Commissioner on the owner of the patent compelling him to grant a license to the sufferer. The Act states that the patentee must supply the reasonable requirements of the public. The owner of the patent, however, may be heard and if he proves that the alleged sufferer is not in the true sense of the word "of the public," but, on the other hand, a competitor of the owner of the patent in the supply of the invention to meet the requirements of the public, then it may be expected that the Commissioner will deny the petition for the license and the alleged sufferer will be compelled to send his customers to the owner of the patent. If, however, it appears to the Commissioner that the owner of the patent is exercising his monopoly in the restraint of trade or is otherwise not satisfying the reasonable requirement of the public in reference to the invention, then he will order the owner of the patent to grant the license; and if the license so ordered is not granted within three months, then the patent will be forfeited. The law before 1903 compelled the patentee to supply his invention upon demand, to everybody. The result was that a man taking out a patent on a stovepipe making machine, for instance, by which he might be able in a couple of weeks make a stock which would take a whole year to sell. A competitor could come along and demand the sale of a similar machine, and if the patentee refused, he would forfeit his patent, notwithstanding the fact that the sale of the machine might put him out of business. All patents are still issued subject to this requirement, but the patentee may under such a condition of affairs obtain relief by which the patentee could tell the competitor to send his customers to him.

I may draw attention here to the fact that the spirit of Canadian patent law is that manufacture for Canada's need must be carried on in Canada. This is further demonstrated in another condition upon which the Canadian patent is granted namely: the limit of time set for importation of the invention. According to law if the owner of a patent or his licensee or an assignee of a share in the patent, imports the patented invention or any machine or car or locomotive or frog members, switchstand or anything else containing the invention after the expiration of one year from the grant of the patent, then the patent shall be void as to the interest of the person importing it. For instance, supposing John Jones has a patent on a detail structural part for the reinforcement of the roof of a box car and he grants a license to a car dealer who has the cars built in the United States and equipped with the patented structural detail. These cars are imported by him into Canada say one year and three months after the issue of the Canadian patent and sold to a railway company. In this case the patent is forfeited because of this importation, but it is only forfeited as to the interest of this dealer and consequently his license is lost; and if John Jones has had nothing whatever to do with and no knowledge of this importation, then his patent is not affected. On the other hand, if John Jones has knowledge of this transaction of his licensee, which may be proved by the obtaining of license fees for the cars sold, then he has connived and because of this connivance, not having prevented the licensee from importing, John Jone salso forfeits his rights and the patent itself becomes null and void and the invention is thereby free to be used by the general public. There is an erroneous belief that the Canadian patent law does not apply to railway inventions and that cars and locomotives and railway stock generally may be built or equipped in the United States according to or with inventions patented in Canada and imported into Canada without jeopardizing the Canadian patent rights. In fact, I have heard it stated positively by lawyers in the United States that the Canadian Patent Act makes an exception of railway cars. They base their contention on a section of the Canadian Act which makes an exception of inventions in any foreign ship or vessel touching our shores. The law, however, is not any more open to interpretation than the law governing manufacture, because its wording is simple and very clear. This interesting law reads as follows:

> No patent shall extend to prevent the use of any invention in any foreign ship or vessel, if such invention is

not so used for the manufacture of any goods to be vended within or exported from Canada.

You can imagine a barge being brought up to the shores of Lake Ontario on which was installed a plant to manufacture something that was patented in Canada. There is nothing equivocal in these words. It is clear that the law relates to any foreign ship or vessel and it does not require a legal luminary to make our learned judges understand what is meant by the words "foreign ship or vessel." Anyone having a rudimentary knowledge of the English language knows that a foreign ship or vessel cannot be a railroad car on rails and I have no doubt, that when the time comes for a court of competent jurisdiction to decide what this law means that there will be no hesitation in deciding that it has reference to ships or vessels or in other words steam ships or sailing vessels coming from foreign ports to the ports of Canada, and that it is limited strictly to these ships or vessels and cannot be extended in its scope to include railway rolling stock. There is considerable controversy about this, but our friends across the border who persist in ignoring our laws governing manufacture and importation cannot have a conviction of the justice of their cause, when they argue that the railway rolling stock is a foreign ship or vessel, otherwise they would take the steps available to them to obtain a decision on the question by our courts.

Another phase of the Canadian patent law which I should bring to your attention is the fact before mentioned that an applicant must swear that his invention has not been in public use or on sale for more than one year with his knowledge or consent, before his application for Canadian patent. When the invention is conceived and developed in Canada it is not likely that the inventor will sacrifice his rights. The case is different with the inventor who conceives and develops his invention in the United States, because if he takes advantage of the United States law and puts the invention on the market for almost two years before he applies for his United States patent, then he will have forfeited his Canadian rights even before he applies for his United States patent. In many cases this is done inadvertently, the United States inventor being ignorant of the Canadian law and after his United States patent application has been allowed and he finds his invention is a money-maker in the United States he turns his eyes to Canada and seeks advice from his attorney regarding Canadian patent rights. The grant of a Canadian patent is also

subject to the filing of the application within one year from the date of the issue of the first foreign patent for the same invention. It has happened in cases which have come before me for investigation that the United States inventor has not filed his Canadian application until sometimes five or six years after the first public use or offer for sale of the invention in the United States. This comes about in this way, he makes his forward step in the art and in order to ascertain if the idea is practical and if practical whether there is any money in it he gets some made and places them on the market, or if it is a comparatively large plant interests a railway or other large corporation by offering the invention by means of blue prints. A bridge, of course, could not be built and then offered for sale, so the inventor would bring his drawings to the bridge department of the railroad and submit his idea. Whether the bridge is built at that time or not the inventor must file his application for a Canadian patent within twelve months from the date he offers it for sale. If he does not offer it for sale but constructs the invention in private and then puts it in use where it may be seen by the public; a new headlight for instance, he must file his application for a Canadian patent within twelve months from the day of first public use. Our friend, however, usually has no knowledge of this condition of grant of the Canadian patent and may have been told, as has too frequently happened to my knowledge, that the Canadian patent may be obtained by filing an application within twelve months after the issue af the corresponding United States patent. With this idea in the United States inventor's mind he proceeds with his United States work and after having satisfied himself that the idea is practical and a moneymaker, he files application for United States patent. It is a well known fact that an application for United States patent takes all the way from six months to six years and longer to get through the Patent Office. Assuming that this inventor's patent issues in the United States two years from the date of its filing and that it is filed one year and eleven months after his first offer for sale or public use, after the issue of his United States patent and within a year he files his application for a Canadian patent, ignoring the statement in the petition that the invention has not been in public use or on sale with his consent or allowance for more than one year previous to his application for a patent in Canada, then his application is void as is also his patent if granted. Sometimes these inventors have been advised that what is meant by this statement is public use or offer for sale in Canada only, and that public

use or offer for sale outside of Canada does not affect in any way the Canadian rights. This is not so. The Canadian application must be filed within one year from whichever is the earliest date, the offer for sale, public use or issue of the foreign patent. For this reason a large proportion of the inventions which have been conceived and developed in the United States and form the subject of Canadian patents have been dedicated to the public of Canada before the filing of the application for the Canadian patent and consequently all these Canadian patents are not worth the paper upon which they are written.

Contrary to common belief, invention is a simple process of the mind and it may be interesting for me to give some examples:

It was found that in casting metal rotary motion would result in throwing out the dross. This was due to an understood law of nature, an operation of centrifugal force, the advantage being that, for instance, rollers with more perfect surfaces could be cast. This was known and it was the practice to stir or otherwise cause the metal to rotate, it being an understood law of nature that rotary motion would so result, as an operation of centrifugal force. The point I wish to convey is that those skilled in the art of casting metal knew that by imparting a rotary motion to the molten metal, the dross would be caused to separate; and the problem before all molders was to produce the motion more conveniently and uniformly than by stirring the liquid metal, as soup would be stirred by a spoon, in a pot. The commonplace workers in the art employed any kind of implement suitable for the purpose and overlooked the inconvenience and want of uniformity, but a man named James Harley, a workman in a foundry in Pittsburgh conceived the idea in 1834 that he could make the metal revolve by injecting it into a mould tangentially. He obtained a patent for it and the patent was upheld. Another interesting simple invention was made by Asa Whitney of Philadelphia in 1848. He discovered that hardness once given to iron will not be destroyed or seriously impaired by the immediate reheating of the iron and its subsequent very slow cooling. What he discovered was simply a law of nature and as such could not be patented, but he went further and worked out a process consisting in taking the wheels from the moulds very soon after their rims were chilled and in putting them immediately into a chamber which had previously been heated about as hot as the heat of the wheels when put into the chamber and thereupon gradually raising the temperature of all parts of

the interior of the chamber or furnace and its contents to an equally high point, and finally in causing all parts of the wheel to cool with equal slowness. Mr. Whitney obtained a patent for his process and his patent was upheld. In each of these cases the invention consisted in simply applying a well known law of nature to a certain art and the simplicity resides in the fact that once the obstacle is seen and the problem is lined up there is usually very little difficulty for the trained mind to conceive an idea by which the obstacle may be overcome and a step forward made in the art.

Let us take as an example an invention which has been produced in Montreal and assume that the inventor, contrary to the usual practice of inventors in the Province of Quebec, wishes to obtain a reward for his invention. He makes his application for a patent within one year from first public use, and if he has not already commenced to use his invention he introduces it to the trade. Of course, if he has a backer he may be relieved of the necessity of introducing the invention to the trade by his personal effort, but the case I am taking as an example is one where the inventor has no backing. I have known cases where the inventor has succeeded by first having his invention manufactured, then obtaining a price from the manufacturer, after which he approaches the jobber, the retail dealer or the consumer, turns over any order he obtains to the manufacturer to be filled at a price stipulated in a contract, his sale price being, of course, in advance of this. A demand may be created this way, having for its purpose to induce the manufacturer, jobber, or retailer to become interested. There are many other ways of course to realize on inventions.

I wish to impress upon the members of the Canadian Railway Club and particularly the manufacturers and workers of the Province of Quebec that the manufacturers of the Province are very lax in obtaining the reward of increased business from the monopoly usually due for ingeniously increased efficiency. The men of our Province have obtained less than one half the number of patents obtained by residents of Ontario in the past fiscal year. From the information that has come to me from time to time during the past thirty years I have come to the belief that in a great many cases the Montreal manufacturer and worker does not place the same value on his ingenuity as is placed by the manufacturer and workers of other places.

There is a great advantage to employers from patents upon inventions developed by their employees. This is so whether the patents are held by the employer or employee, and the

advantage is due to the mere fact that the patent being obtained usually serves as a bar to a competitor obtaining a patent by which he may hold up his employer.

In the case where a manufacturer has a valuable man working for him and this man makes certain improvements in connection with his work. If he encourages that man and pays for his patent it is to the employer's advantage. I knew a gentleman in Montreal in the cork business, and he had a department in which the corks were tapered, they being turned out roughly in cylindrical form first. In this tapering department he had eight tapering machines and eight girls together with a forewoman, and a boy to bring the corks to the machines. There was a man working there who swept up the place and acted as a storeman or watchman. He noticed that the girls did not work part of the time and he conceived the idea of putting a little attachment on the machines by which the corks could be fed into the machine automatically. The result was that four of the machines were able to do the work of the former eight machines, and the services of the girls and the forewoman were dispensed with. The employer paid for the patents for his employee and the employer was able to handle the patents so well that the employee was soon able to leave work and buy a block of houses. He lives in one and supports his family with the rent received from the others.

I know of another case. A prominent manufacturing concern where a young man had been employed for four years and during that time had been advanced and received increases in salary. He was and is a valuable man. He improved a certain branch of the business and came to me to protect these improvements, which I did. As soon as it became known to the management that the invention was valuable he was summoned to the office and told to assign his rights in those improvements over to the concern, and as he refused he was fired. But I do not blame men talking "Bolshevism" when employers treat their employees in this manner.

With regard to contracts many of our most prominent concerns make contracts purporting to be based upon patents of invention but when investigated and analyzed prove to be a guarantee of profit to some outsider which could not be exacted except for the contract itself. Business troubles of this nature can usually be foreseen and avoided by a careful investigation of the antecedents of the patents involved, before the contract is signed.

I could tell of many instances where contracts purporting to be based upon patent rights did not have any existing

patent rights for their basis. In one case a Montreal financier became interested in a new machine operating at Boston, and went down to see it. The demonstration was very successful and a contract was signed by the Canadian for $150,000, the first payment being made of $5,000. When they returned to Montreal after the contract had been signed, I was asked to look into the patent and discovered that no patent rights existed in Canada. Naturally the financier was considerably disturbed. Luckily there was a clause in the contract which referred to Canadian patent rights which implied the existance of such rights. I understand that the first payment was refunded. You can understand the trouble the financier had in this case which would have been avoided if he had had first satisfied himself regarding the existance of the Canadian patent rights. This contract was so drawn that if there had been any patent rights whatsoever, however limited in scope, the Montreal financier would have been compelled to pay the full amount notwithstanding the fact that the monopoly conveyed by the patent rights might be practically worthless.

In conclusion I would say that the individual granted a monopoly on an invention by the Patent Laws of Canada, is afforded a protection which is not equalled by the patent laws of any other country, and he is encouraged to explain his invention to those engaged in the same kind of work. His patent of invention is a property of which he cannot be despoiled by any Act of Parliament, either Federal or Provincial. His right is not excelled in point of dignity by any other property right, and equals the right of authors in their copyrighted works. Furthermore the benefits he confers are greater than those he receives, for he confers upon his community a means of either lessening toil or of increasing comfort. It is also an indestructable heritage of posterity. In return he receives a limited and conditional monopoly from the Dominion of Canada the grant of which costs neither the Government nor the people anything. And his reward should be all the more sure because it is for creating things unknown before and the creation of which is a step forward in the commercial or scientific life of his country.

Chairman:

Gentlemen, we have listened to a most interesting and valuable paper, from an educational standpoint. The paper is now open for discussion and for any enquiries which you may wish to make.

Secretary:

Mr. Chairman and gentlemen, perhaps Mr. McFeat could enlighten us somewhat on the subject of infringement.

I heard of a case a short time ago where a patent was granted for a steel casting that was made in one piece, and it appeared that the patent really hinged on the words "one piece."

It so turned out that a certain party was anxious to use this particular design of casting but in order to avoid royalty charges he had a pattern made but changed the original design by coring two holes in same and afterwards covered these with bolted plates, thereby making a 3 piece article out of it, and made use of it without any trouble.

Mr. W. P. McFeat:

If that man's patent could not stop this from being done then it is clear that the patent was not properly taken out. There are good patents and bad ones.

Secretary:

Mr. President, if I am permitted to speak again I should like to call the attention of this large gathering to an idea that came to me some little time ago, and as Secretary of this club I feel that I must give of my best and assist you in every way possible, and am now going to give you an outline of this idea so that if any of you desire to take it up you may do so and obtain a patent on it.

It merely requires a person to procure some $25,000 to $50,000 to start it and in a very short time he will become very wealthy.

This idea is in the form of a household commodity, it solves the problem of broken window glass and is merely a fixture fastened to the inside of storm windows with provision for sufficient ventilation, then again it can be secured to the inside of summer shutters and prove a burglar proof affair.

With the description I have given you of this simple little contrivance you no doubt can put the thing together and make your fortune.

Mr. W. T. Hawes:

I would like to ask Mr. McFeat a question in relation to the employer and the employee. A man employed on a machine is of necessity more familiar with the machine than the employer himself. Is the employer protected in any way against any patent which his employee may take out, other than by mutual

arrangement, since the employer's time and money might have been spent in gaining the knowledge?

Mr. W. P. McFeat:

The employer may have an employee to repair that machine when it breaks down but if his employee can make that machine turn out more work or turn out the work in better condition, then the credit is due to the employee and not to the man who employs him, and the employee is entitled to a patent, the employer having no right in it. If in making these improvements on the machine the employee uses the time and material of his employer the employer is then entitled to a rebate for the amount he may have lost in the development of the invention.

Mr. W. T. Hawes:

Supposig an employee has succeeded in improving a certain machine and he leaves the concern and goes to another concern taking his knowledge with him. Can he use it in developing a similar machine in the last named concern, giving it to his new employer? Is that law?

Mr. W. P. McFeat:

The new employer has just as much right to use this as the former employer. It depends whether they are covered by patents or not. If his employer protects these developments in each step of the work, then when the man leaves he can take nothing with him, otherwise he can.

Mr. W. T. Hawes:

About three weeks ago the newspapers cited an interesting case of a mechanic working for a gramophone company who was a highly skilled man and this man went to a competing concern and showed them how to apply the new machine. The case went to court and the court supported his previous employers.

Mr. W. P. McFeat:

It must have been patented. One of the conditions upon which you obtain a patent is that you tell what you have, and when the patent is granted it is published in the Post Office Record to let the public know what the invention is.

Mr. C. Brady:

There is one question I would like to ask. Is there any-

thing in the patent laws of Canada which gives the patent owner the right to restrict what shall be done with the device after it has come into the possession of the buyer—for instance, the Gillette safety razor blades specify that you must not sharpen them although when you buy them you do not sign any contract. If I have a patent on any device, but have not signed any contract am I at liberty to tell the purchaser that he must not repair it?

Mr. W. P. McFeat:

It is all a matter of contract. Usually when a man purchases a patented article he becomes the owner of it, but if the manufacturer is bound by contract to do a certain thing with it he is required to carry out these conditions,—for instance, a man might buy a horse and the seller might stipulate that he is to do certain things with the horse after it comes into his possession. It is the same with a patented device. It is a matter of contract.

Mr T. C. Hudson:

This firm followed up the man and got a ruling against him, so it must have been in the nature of a trade secret that the firm had in the contract.

Mr. W. P. McFeat:

If a man has no property what can you do? You cannot hang him for that. Under ordinary conditions they would not restrain him. It is very hard to get any court under the British flag to give any ruling which will tend to restrict trade. Restriction of trade is one of the things they want to wipe out.

Mr. A. E. Mimms:

In the case of a device in common use, manufactured in vary-forms, by different makers, but involving the same general principle, an interesting patent situation may occur, when later on, a device is brought out, for the same purpose, but closely indicating the basic principle, in a manner not previously covered.

For example, in a sander for locomotives, patented in the United States, the basic claim covers the opening at the top for the introduction of sand, the discharge opening for the ejection of sand, and an opening opposite the discharge opening for the introduction of an air jet to force the sand out. This is the principle of all sanders.

It is the claim that this later patent covering the basic principle, seriously effects the previous patents, and practically invalidates them. Is this correct?

Mr. W. P. McFeat:

That is a rather complicated question. We will assume that the sander has a certain principle and later sanders have been developed on the same principle. The first man would be able to control the later development if he had broad claims in his patent. They should be so broad that a reading of the claims will describe all these other devices. But it is almost impossible for such a condition to exist now as there is very little used in railway practice to-day that has not been referred to in some patents possibly as much as twenty years ago. It is usually the refinement that makes the idea patentable. One of the principal reasons for invalidity of a patent is prior knowledge of the invention being proved. If it can be proved that someone knew of the idea before the patentee made his invention then the patent is usually invalid.

Mr. N. Holland:

That simple idea of Mr. Booth's (the Secretary) reminds me of Hermann. You will remember Hermann, the great magician, who used to come to the old Royal Theatre where they played "Black Crook." Hermann had a trick. He would take a quarter, put it between his fingers and the quarter disappeared. He would then say, "Now, watch, and I will show you the way this quarter disappeared." He would go through the motions slowly and when the quarter again disappeared he would say: "Now, if you will practice that for forty-five years, as I have done, you will be able to do it just as well as I can." (Laughter.)

On page 17, the paper mentions that in the old days those who violated patent rights had their ears cut off. In these days instead of taking an "earing" we give them a "hearing." (Laughter.)

Mr. McFeat spoke of the financier who got himself into trouble by not looking carefully into a patent. It is very easy to get caught on patents. I have had some experience and I speak feelingly. About sixteen years ago I brought out an electrolytic process. Two firms in the States wanted to buy it. Finally a Philadelphia concern made arrangements to take it over and were to pay me $20,000 per annum. The contract was drawn up by a Philadelphia lawyer and checked over by a Montreal lawyer. When signing the contract the

lawyer said to me, "There must be a valid consideration, and it is the rule in signing these contracts that some money should pass. I will therefore give you a dollar." After we had signed the contract, the Philadelphia lawyer said, "I will toss you for the dollar." I said, "What's the use. You will win it anyway"—and he did. (Laughter.)

After a year had gone by, I went to Philadelphia to see if they were using the process and found they were not. They were very frank about it, and said that while it would make an enormous saving in their business, it would cost a quarter of a million dollars to install and that they did not intend to use it. I said, "You have got to use it, according to the contract. " They said "Where?" I said Paragraph 3 reads, 'When you begin to manufacture—!" They said, "Yes, it says "*when* we begin to manufacture," but it does not say "we must begin to manufacture," and that one word cost me $20,000 per year. That is the only time I ever got stung. (Laughter.)

There is only one other point in this paper. Mr. McFeat, on page 24, states that a foreign ship or vessel cannot be called a railroad car. I do not see how the Americans could possibly designate a railway car coming *into* Canada as a ship, but from what I hear, there are cars going over to the *other* side that are as *wet* as any vessel I ever saw. (Laughter.)

Mr. C. W. Wells:

What is the standing of German patents taken out in Canada before the war?

Mr. W. P. McFeat:

We base our treatment of German patents in Canada on the treatment given them in England. In England the dye-makers, before the war, were all Germans. When the war came they shut up and went back to Germany. The English people said: "We must not let these places remain closed." So they opened up and commenced operating, obtaining the processes from the published patents. The British Government collected the royalty, the idea being to pay it back to the patentees after the war was over. We did the same thing in Canada and have accumulated about $30,000, but how or when it will be turned over I cannot say. If the inventions have not been manufactured in Canada the patents may be forfeited; but the fact that other people have taken up the manufacture has kept many of these patents alive.

Mr. H. J. Dyke:

In connection with a foreign patentee who has taken out a patent in Canada in proper order, the practice seems to be to make one article every year so as to keep within the law of continuous manufacture. I should like to ask if the making of one article per annum is considered as continuous manufacture.

Mr. W. P. McFeat:

That has never been decided. A great many people believe that manufacturing every three months will keep a patent alive, but the great majority of patents are relieved from the requirement of continuous manufacture. Within six months after a patent is issued an application may be made for relief from this and they may then be placed under that clause of the act known as compulsory license. If the patentee can prove that the article cannot be readily carried in stock or in a process or has to do with the railroad, telegraph or telephone the commission will relieve him of that restriction.

Mr. H. J. Dyke:

In the case of a patentee,—say he patents two articles; one he makes and sells continuously, and of the other, with the idea of keeping the patent alive, he makes one per annum. Does that keep the other patent alive?

Mr. W. P. McFeat:

You mean two patents of one article?

Mr. H. J. Dyke:

No, both specific articles.

Mr. W. P. McFeat:

Like two different lamps. If one patent covers one lamp and another patent covers the other lamp, if he made only one he would forfeit the other, but if he made one per annum he would keep it alive.

Mr. R. H. Black:

I should like to ask if it is possible to grant a patent to more than one person. The reason I ask is that in England it is the practice for patents to be issued to the patentee and the railway company.

Mr. W. P. McFeat:

A patent may be granted to a railway company, but in Canada the application papers must be signed by the inventor, who may assign it to whomsoever he pleases. The railway company may pay for patents in the man's name and have a contract with him. In England the first importer is also looked upon as the first inventor provided he has not acted fraudulently regarding the true inventor.

Mr. R. H. Black:

There is no doubt but that the man in the shop, if he produces an invention he is entitled to the patent, but the case is somewhat different with the foremen or those in an official capacity.

Mr. W. P. McFeat:

Why? If the man has mechanical skill and is able to produce better results from the material at his disposal he is entitled to patent his inventions and collect royalty on them.

Mr. R. H. Black:

In England, if a patent should be brought out by the Chief Mechanical Engineer the patent when granted would be in the name of the Chief Mechanical Engineer and the railway company.

Mr. W. P. McFeat:

That is a case where he sells or assigns it to the railway company.

Mr. R. J. Needham:

Can any individual part be made and placed in a patented article without it being necessary to get it from the patentee?

Mr. W. P. McFeat:

Yes, provided you do not produce a new machine.

Mr. R. McVicar:

I think that was brought out, as far as the States in concerned, by a manufacturer who began making and selling Westinghouse air compressor parts, assuming that anyone could make repair parts for these compressors and sell them to the railways. This company, therefore, began the manufacture and sale of parts to the railways.

I may be a little off about the details, but I believe this

company went in for the manufacture of parts very extensively; and, if I remember rightly, the case was taken to the courts where it was decided that a manufacturer or a user of the device could make any single part and sell it or use it, so long as it was for repairs or replacement.

Mr. W. P. McFeat:

A patent may be granted for a combination of things any one of which might be new,—old bolts, old levers, or any number of old parts combined and made up, but when you put them together, if they give better results, the combination is patentable. The individual parts may be made by anyone.

Mr. N. Holland:

That theory was brought out at McGill University. A professor was dealing with the question of how many times you could repair an article and it still remain the same article. One of the boys said, "Professor, I have a penknife. If I replace one side of that knife is it the same knife?" and the professor said "Yes." "Well, then, if I replace the other side is it the same knife?" and the professor said, "Certainly." "If I replace the blade is it the same knife?" and the professor replied, "Yes." "I have done that," said the student, "and have here a knife which I made out of the parts that were replaced. What I want to know is, which is the first knife?" (Laughter.)

Mr. T. C. Hudson:

I do not want to shut off the argument if there is any more to be said, but I should like to move that a very hearty vote of thanks be tendered Mr. McFeat for his kindness in coming here to-night and giving us this very interesting and instructive lecture.

Mr. E. A. Cunningham:

I have very much pleasure in heartily seconding that. It is somewhat unprecedented to have a lawyer open his books to the general public as Mr. McFeat has done to-night, and we appreciate his kindness. I hope his bills against the individuals will not be too great.

Chairman:

Moved and seconded that a hearty vote of thanks be tendered Mr. McFeat for his interesting lecture.

Carried. Applause.

Mr. W. P. McFeat:

Gentlemen, I thank you.

Chairman:

Before we close I should like to announce the subject for the next meeting. At our November meeting we are to have a paper from Mr. R. H. Black, Engineer, Power Plant Construction, Grand Trunk Railway, on "How to Heat Railway Buildings Economically." Mr. Black is a very skilled and experienced man in this line of work, and from what I have heard I am sure we shall have a most interesting paper.

I should also like to make the usual announcement that coffee and sandwiches will be found in the room at the rear.

As there is no further business a motion for adjournment will be in order.

A Member:

I move that we adjourn.

Another Member:

I second that.

Chairman:

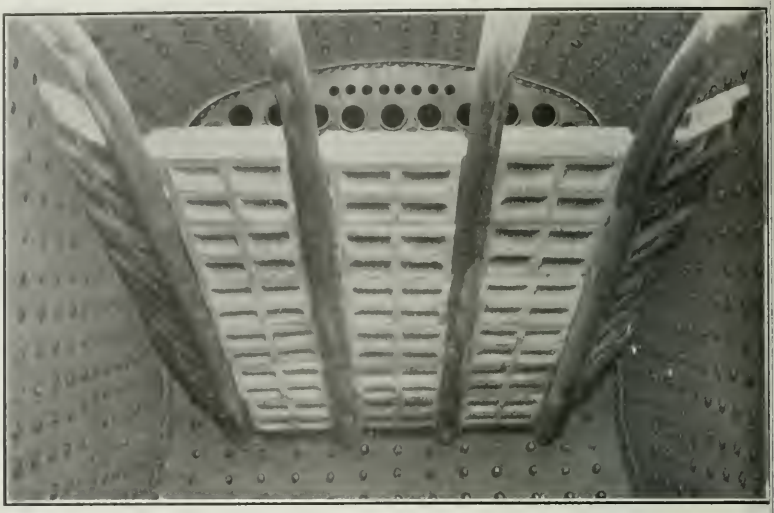
Moved and seconded that we adjourn.

Carried.

ALEX. TURNBULL

DIED

October 14th, 1920



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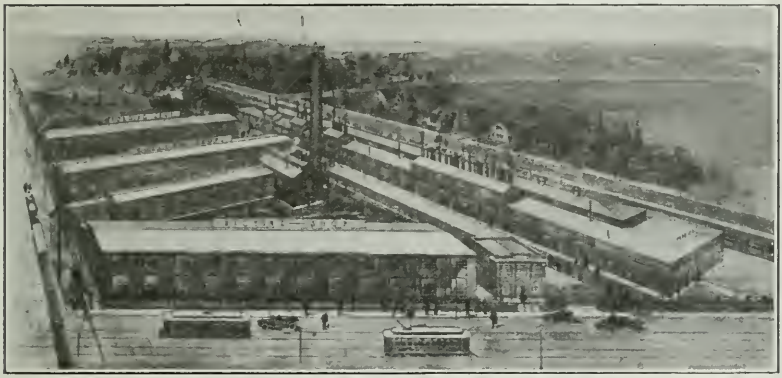

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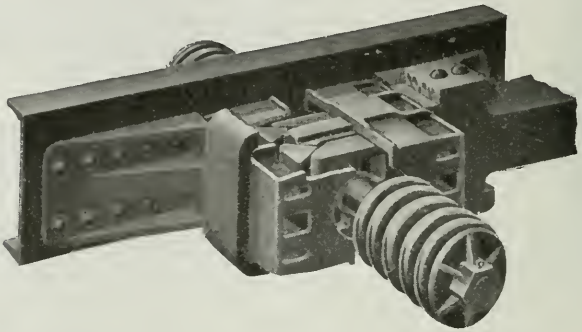

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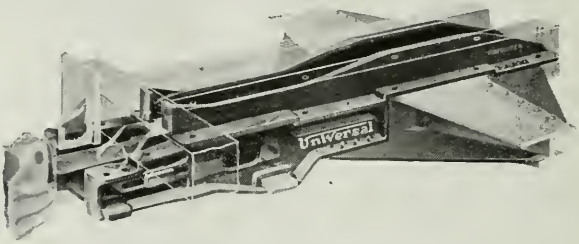

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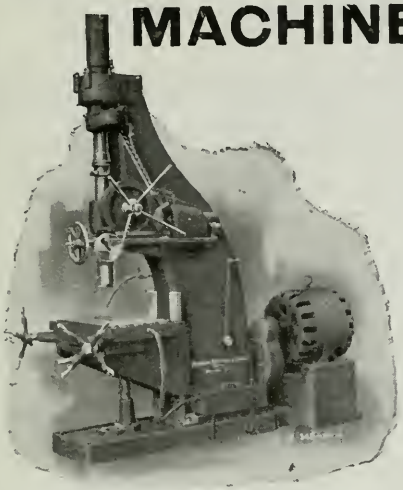

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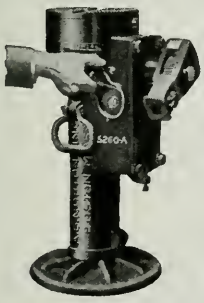

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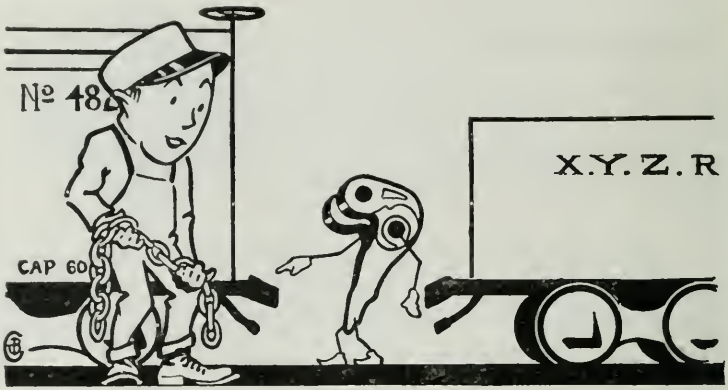

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